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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,172	07/11/2003	Kwang-Kyu Kim	1293.1908	2995

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EXAMINER

CHEN, TIANJIE

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,172

Applicant(s)

KIM ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Non-Final Rejection (RCE)

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/22/2006 has been entered. Claims 1-19 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1–19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bronshvatch et al (US 5,528,434).

Claim 1, Bronshvatch et al shows a disk clamp in Fig. 6 of a hard disk drive to affix a magnetic disk that stores data to a spindle motor of the hard disk drive (Fig. 8), the disk clamp including: a pressing portion 76 formed along an outer circumference of the disk clamp at an edge portion, to press an upper surface of the disk in a vertical direction; a stress distribution portion formed inside the pressing portion and having a profile with a curved shape 72 bulged upward to distribute stress applied to the disk; and a plurality of screw coupling holes 58 into which screws are inserted to be coupled

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to an upper end portion of the spindle motor and provided at a predetermined distance in a circumferential direction inside the stress distribution portion.

Claim 2, Bronshvatch et al further shows that the pressing portion has a profile having a curved shape bulged downward.

Claim 3, Bronshvatch et al further shows that a radius of the curved shape of the stress distribution portion is greater than or equal to a radius of the curved shape of the pressing portion.

Claim 4, Bronshvatch et al further shows in Fig. 5 that the pressing portion is continuously formed at the stress distribution portion.

Claim 5, Bronshvatch et al further shows in Fig. 6 that the disk clamp has a same thickness throughout an entire portion of the disk clamp.

Claim 6, Bronshvatch et al shows in Figs. 6 and 8 that the disk clamp has a dome shape with a center portion bulged upward as a whole and, when the disk clamp is coupled to the spindle motor by the screws, the disk clamp is flattened as a whole.

Claim 7, Bronshvatch et al further shows that the disk clamp is made of stainless steel (Column 5, lines 58-61), which is a metal material having a predetermined elasticity.

A "product by process" claim is directed to the product per se, no matter how actually made, see *In re Hirao*, 190 USPQ 15 at 17 (footnote 3 CCPC, 5/27/76); *In re Brown*, 173 USPQ 685 (CCPA 5/18/72); *In re Luck*, 177 USPQ 523 (CCPA, 4/26/73); *In re Fessmann*, 180 USPQ 324 (CCPA, 1/10/74); *In re Thorpe*, 227 USPQ 964 (CAFC, 11/21/85). The patentability of the final product in a "product by process" claim must be determined by the product itself and not the actual process and an old or obvious product produced by a new method is not patentable as a product, whether claimed in

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"product by process" claims or not. Applicant's claim 7 is a product claim, the limitation "manufactured by press processing" is a process related limitation, which gains no weight in determining patentability.

Claim 8, Bronshvatch et al further shows that the disk clamp includes a substantially S-shaped edge portion to press an upper surface of a disk in a vertical direction and distribute stress applied to the disk; and an inner portion having a plurality of apertures circumferentially arranged at predetermined distances inside the substantially S-shaped edge portion (Figs. 5 and 6).

Claim 9, as described above, Bronshvatch et al further shows a disk clamp of a hard disk drive as described above, the disk clamp including: a substantially wave-shaped edge portion to press an upper surface of a disk in a vertical direction and distribute stress applied to the disk; and an inner portion having a plurality of apertures circumferentially arranged at predetermined distances inside the substantially wave-shaped edge portion.

Claim 10, as described above, Bronshvatch et al further shows that the inner portion of the disk clamp is coupled by screws via the apertures to an upper end portion of a spindle motor of the hard disk drive (Fig. 8).

Claim 11, as described above, Bronshvatch et al further shows an outer portion of the substantially wave-shaped edge portion is a pressing portion with a profile having a substantially curved shape with at least one bulge downward.

Claim 12, as described above, Bronshvatch et al further shows that inner portion of the substantially wave-shaped edge portion is a stress distribution portion with a profile having a substantially curved shape with at least one bulge upward.

Claim 13, as described above, Bronshvatch et al further shows that a radius of the substantially curved shape of the stress distribution portion is greater than or equal to a radius of the substantially curved shape of the pressing portion.

Claim 14, as described above, Bronshvatch et al further shows that the pressing portion is continuously formed at the stress distribution portion.

Claim 15, as described above, Bronshvatch et al further shows that the disk clamp has a same thickness throughout an entire portion of the disk clamp.

Claim 16, as described above, Bronshvatch et al further shows that the disk clamp has a dome shape with a center portion bulged upward as a whole and, when the disk clamp is coupled to a spindle motor by screws, the disk clamp is flattened as a whole.

Claim 17, as described above, Bronshvatch et al further shows that the disk clamp is made a metal material having a predetermined elasticity, and the limitation "manufacture by press processing" gains no weight in determining patentability.

Claim 18, as described above, Bronshvatch et al further shows a disk clamp of a hard disk drive to fix a magnetic disk that stores data to a spindle motor of the hard disk drive, the disk clamp including: a pressing portion formed along an outer circumference of the disk clamp at an edge portion, to press an upper surface of the disk in a vertical direction; a stress distribution portion formed inside the pressing portion and having a profile with a curved shape bulged upward to form a dome portion to distribute stress applied to the disk, and having a plurality of screw coupling holes into which screws are inserted to couple the disk clamp to an upper end portion of a spindle motor, the screw coupling holes being provided at a predetermined distance in a circumferential direction inside the stress distribution

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portion, wherein, when the disk clamp is coupled to the spindle motor by the screws, the disk clamp is flattened as a whole.

Claim 19, as described above, Bronshvatch et al shows a disk clamp, including: a pressing portion formed at an outer circumferential portion of the disk clamp, to press an upper surface of a disk in a vertical direction; a stress distribution portion formed at the inner side the pressing portion and having a profile curved upward to form a dome portion to distribute stress applied to the disk; and a plurality of screw coupling holes into which screws are inserted to couple the disk clamp to an upper end portion of a spindle motor, the screw coupling holes being provided inside the stress distribution portion; wherein when the disk clamp is coupled to the spindle motor by the screws, the disk clamp is flattened From Fig. 6 to Fig. 7b).

Response to Arguments

3. Applicant's arguments filed 09/06/2005 have been fully considered but they are not persuasive.

- Applicant argues that "In contrast to claim 1, Bronshvatch discloses a stress distribution portion that includes a stiffening bend 64, including first bend 66 and second bend 68 and a spring portion 70. In Bronshvatch, stresses are absorbed by the spring portion 70. In claim 1, a stress distribution portion formed inside the pressing portion and having a profile with a curved shape bulged upward distributes stress applied to the disk. The structures of the disc clamp recited in claim 1 and in Bronshvatch are essentially different in that the disc clamp recited in claim 1 does not include a spring portion."
- Examiner's answer: Applicant admitted that Bronshvatch discloses a stress distribution portion that includes a stiffening bend 64, including first bend 66

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and second bend 68 and a spring portion 70. In Bronshvatch, stresses are absorbed by the spring portion 70. It means Bronshvatch's reference reads on claim 1. Applicant's claim 1 does not exclude a spring portion to be included in the press distribution portion.


Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the features recited above) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER